

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims, including their status identifier, is set forth below.

1-131 (Canceled)

132. (Currently amended) A method **of identifying a compound as having cardioprotective activity** comprising:
- (a) contacting a candidate compound with a G protein-coupled receptor (**GPCR**) comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3, wherein said GPCR is present on a cell or isolated membrane thereof;
 - (b) ~~determining the ability of~~ **whether said** the compound **stimulates the GPCR** ~~to modulate the G protein-coupled receptor; and~~
 - (c) **identifying a compound as having an activity that stimulates said GPCR;**
 - (d) ~~(e)~~ determining **whether** if said compound **of step (c)** has cardioprotective activity **by:**
 - (i) **administering said compound of step (c) to a mammal; and**
 - (ii) **determining whether said compound of step (c) modulates cardiac function in the mammal; or**
 - (iii) **contacting said compound of step (c) with a cardiomyocyte cell in vitro; and**
 - (iv) **determining whether said compound modulates survival of said cardiomyocyte cell; and**
 - (e) **identifying a compound as having cardioprotective activity.**

133. (Previously presented) The method of claim 132, wherein said cell is a mammalian cell, a yeast cell or a melanophore cell.

134. (Previously presented) The method of claim 132, wherein said G protein-coupled receptor is constitutively active.

135. (Previously presented) The method of claim 132, wherein said G protein-coupled receptor comprises the amino acid sequence of an endogenous receptor comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:5.

136. (Currently amended) The method of claim 132, wherein step (b) of the method comprises detecting a second messenger.

137. (Previously presented) The method of claim 136, wherein the second messenger is cAMP or IP₃.

138. (Currently amended) The method of claim 132, wherein step (b) of the method comprises measuring pigment distribution in melanophore assay.

139. (Currently amended) The method of claim 132, wherein step (b) of the method comprises measuring GTPγS binding to membrane.

140. (Cancelled)

141. (Currently amended) The method of claim 132-140, wherein the method comprises measuring apoptosis of the cardiomyocyte cell.

142. (Cancelled)

143. (Currently amended) The method of claim 132-142, wherein the mammal is a rat or mouse model of heart disease.

144. (Currently amended) The method of claim 132-142, wherein step (d)(ii) of said method element (ii) comprises evaluating a cardiovascular disorder, an ischemic heart disease, or a cardiovascular function in said mammal.

145. (Currently amended) The method of claim 132, wherein step (d)(ii) of said method comprises evaluating said mammal ~~the candidate compounds are screened as pharmaceutical agents for congestive heart failure.~~

146. (Currently amended) The method of claim ~~132~~ 445, wherein the compound of step (c) ~~the screen is for an agonist of the GPCR.~~

147. (Previously presented) The method of claim 146, wherein the agonist is a partial agonist.

148. (Withdrawn) A method comprising:

- (a) administering a candidate compound to a non-human mammal having a genome comprising an inactivated mammalian RUP41 gene; and
- (b) determining if said compound provides cardioprotection.

149. (Withdrawn) The method of claim 148, wherein the non-human mammal is a rat, a mouse or a pig.

150. (Withdrawn) A cultured cardiomyocyte cell comprising a recombinant nucleic acid encoding a G protein-coupled receptor comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3.

151. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective expression of a G protein-coupled receptor comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3 in cardiomyocytes.

152. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective inactivation of a mammalian RUP41 gene in cardiomyocytes.

153. (New) The method of claim 132, wherein said GPCR comprises an amino acid sequence having at least 95% identity to SEQ ID NO:3.